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| 09/522,834 | 03/10/2000 | Thomas F Callahan | 01720/UREA-9701-C | 4824 |

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EXAMINER

LEE, PING

ART UNIT

PAPER NUMBER

2644

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/522,834

Applicant(s)

CALLAHAN, THOMAS F

Examiner

Ping Lee

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3, 4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Scott (US 4,878,560).

Regarding claim 16, Scott shows the noise barrier device (Fig. 3) to be held against the side of the user's head at the ear, the audio chamber defining part (shown in Fig. 2), a cushion interface part (9), a peripherally extending cushion (5, 7). Scott shows the material being at least partially plastically deformable (col. 1 lines 63-66).

Regarding claim 17, as shown in Figs. 2 and 3, Scott shows the ear adapter body having a first end (the end closest to 14) and a second end (22), the ear canal section (the body inside the ear canal as shown), the outer ear section (14, 5, 7) and a concha section with concha cushion (9).

3. Claims 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Huntress (US 4,055,233).

Regarding claim 16, Huntress shows the noise barrier device (Fig. 3) to be held against the side of the user's head at the ear, the audio chamber defining part (shown in Fig. 1), a cushion interface part (2), a peripherally extending cushion (4,5). Scott shows the material being at least partially plastically deformable (col. 2, lines 43-44).

Regarding claim 17, as shown in Figs. 2 and 3, Huntress shows the ear adapter body having a first end (the end closest to 6) and a second end (the end closest to 3), the ear canal section (the body inside the ear canal as shown), the outer ear section (4, 5, 6) and a concha section with concha cushion (4).

4. Claims 7, 10, 11, 16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Curry (US 4,658,931).

Regarding claim 7, 10, 11, 16 and 18, Curry shows the ear cups (102,100) to be held against the sides of the user's head at the ears, the headband (128), the audio chamber defining part (106,104), a cushion interface parts including cushions (122,120) to encircle the ear canal entrances of the ears. Curry shows the material being at least partially plastically deformable (col. 3, line 28).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-11, and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curry (US 4,658,931) in view of Huntress.

Curry's noise barrier apparatus is discussed above. Regarding claims 8-11, and 15-18, Curry fails to show an ear adapter body. Curry suggests the possibility of disposing the stethoscope acoustic tube through the ear cups (124, 126) (col. 6, lines 1-

18) without explicitly showing how to fix the stethoscope acoustic tube to the opening of the ear canal. Huntress teaches an ear adapter body for a stethoscope acoustic tube. Huntress's adapter not only provide ambient noise attenuation, it also provide better sound transmission by directly coupling the sound into the ear canal (col. 2, lines 54-63). Thus, it would have been obvious to one of ordinary skill in the art to modify Curry's noise barrier apparatus by incorporating the adapter body as taught in Huntress in order to secure the stethoscope tube to the ear canal to provide unaltered the sound and further attenuating the ambient noise.

Regarding claims 1-7 Huntress teaches that cushion is made of flexible material, such as deformable rubber, or silicon rubber, but fails to show that the damping ratio is greater than or equal to 1.0 and the material is partially plastically deformable. Huntress teaches that the cushion material has to be soft and flexible and yet strong enough to support the headsets and attenuates the ambient noise. Since Huntress's suggested material is silicon and the example provided by the specification is also silicon, it would have been obvious to one of ordinary skill in the art that the claimed property limitation is either inherently anticipated or being obvious.

7. Claims 1-11, 15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curry (US 4,658,931) in view of Scott.

Regarding claims 7-11, 17, and 18, Curry's noise barrier apparatus is discussed above. Regarding claims 8, 9, and 17, Curry fails to show an ear adapter body. Curry suggests the possibility of disposing the stethoscope acoustic tube through the ear cups (124, 126) (col. 6, lines 1-18) without explicitly showing how to fix the stethoscope

acoustic tube to the opening of the ear canal. Scott teaches an ear adapter body for a stethoscope acoustic tube. Scott's adapter not only provide better sound transmission by directly coupling the sound into the ear canal, it also an adapter for almost all ear sizes (col. 2, lines 50-57). Scott's earmold, as shown Figs. 1 and 2, is small enough to be inside the ear cup of Curry. The material used by Scott is at least partially plastically deformable (col. 1, lines 64-68). Thus, it would have been obvious to one of ordinary skill in the art to modify Curry's noise barrier apparatus by incorporating the adapter body as taught in Scott in order to secure the stethoscope tube to the ear canal to provide direct sound path and further attenuating the ambient noise.

Regarding claims 1-6, Scott teaches that cushion is made of flexible material, such as styrene-rubber copolymer, or flexible plastic, but fails to show that the damping ratio is greater than or equal to 1.0. Scott teaches that the cushion material has to be soft and flexible and yet strong enough to support the headsets. Scott further teaches that any material provides these characteristics could be used. Since Scott's suggested material is plastic and the example provided by the specification is also plastic, it would have been obvious to one of ordinary skill in the art that the claimed property limitation is either inherently anticipated or being obvious.

8. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott.

Regarding claims 12-14, Scott teaches that cushion is made of flexible material, such as styrene-rubber copolymer, or flexible plastic, but fails to show that the damping ratio is greater than or equal to 1.0. Scott teaches that the cushion material has to be

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soft and flexible and yet strong enough to support the headsets. Scott further teaches that any material provides these characteristics could be used. Since Scott's suggested material is plastic and the example provided by the specification is also plastic, it would have been obvious to one of ordinary skill in the art that the claimed property limitation is either inherently anticipated or being obvious.

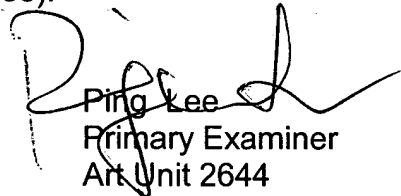
9. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huntress.

Regarding claims 12-14, Huntress teaches that cushion is made of flexible material, such as deformable rubber, or silicon rubber, but fails to show that the damping ratio is greater than or equal to 1.0 and the material is partially plastically deformable. Huntress teaches that the cushion material has to be soft and flexible and yet strong enough to support the headsets and attenuates the ambient noise. Since Huntress's suggested material is silicon and the example provided by the specification is also silicon, it would have been obvious to one of ordinary skill in the art that the claimed property limitation is either inherently anticipated or being obvious.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 703-305-4865. The examiner can normally be reached on Monday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ping Lee
Primary Examiner
Art Unit 2644

pwl